ABSTRACT OF THE DISCLOSURE

The present invention is to provide an all-electric glass-melting deep furnace and a method of refining and supplying glass in which high-quality molten glass can be efficiently produced in large quantity at high heat efficiency. An all-electric glass-melting deep furnace 20 has a bottom 2 and a side wall 4 constructed by piling up fireproof bricks 3 on the perimeter of the bottom 2. A height H of the side wall 4 is set to be twice or more than twice as long as an inside dimension D of the bottom 2 of the furnace. Since the furnace 20 is deep, there can be achieved a thick batch layer, a space in which glass is melted at high temperature, and a cooling area which is necessary to refine molten glass. The method of the present invention makes it possible to remove seeds which are generated when glass raw material are melted. Also, the method of the present invention makes it possible for the molten glass 6 to absorb fine seeds by its pressure and cooling effects that are produced when the seeds move downward to the bottom 2. Thus, the deep furnace makes it possible to produce high-quality glass containing fewer seeds in large or small quantity at high heat efficiency.